

What is claimed is:

[Claim 1]

1. An adjustable wrench for loosening or tightening a fastener, comprising:
 - (a) a handle member having a longitudinal axis between a handle first end portion, a handle central portion, and a handle second end portion, said first end portion including a fixed jaw segment, a fixed jaw surface plane, and a transverse axis to said fixed jaw surface plane, said first end portion also includes a channel therethrough positioned substantially parallel to said transverse axis, said central portion includes a void in communication with said channel, with said void having a longitudinal axis;
 - (b) a movable jaw member including a movable jaw segment, a movable jaw surface plane, and an engagement portion, said engagement portion is slidably engaged within said channel being operational to move said movable jaw member from an open state to a closed state and from the closed state to the open state, said movable jaw member also includes a serrated toothed rack whose pitch line forms an acute angle in relation to said movable jaw surface plane;
 - (c) a beam having a longitudinal axis, said beam is slidably engaged for reciprocative movement within said void, said beam including an end portion capable of projecting into said channel, said end portion having a serrated toothed rack that selectively matably engages with said movable jaw member serrated toothed rack, wherein said beam is operational to help secure said movable jaw member at a selected position between the closed state and the open state when said beam serrated toothed rack matably engages with said movable jaw member serrated toothed rack; and

(d) a trigger member pivotally attached to said movable jaw member and slidably engaged to said handle member, wherein said trigger is operational to facilitate manual movement of said movable jaw member from the closed state to the open state and from the open state to the closed state when said beam serrated toothed rack is selectively disengaged from said movable jaw member serrated toothed rack.

[Claim 2]

2. An adjustable wrench according to claim 1 further comprising a means for urging said beam serrated toothed rack to matingly engage with said movable jaw member serrated toothed rack, wherein said means assists in urging said movable jaw member to a selected position moving from the open state to the closed state resulting in said movable jaw member in a secured position state upon the fastener against moving toward the open state, being operational to allow said adjustable wrench to loosen or tighten the fastener.

[Claim 3]

3. An adjustable wrench according to claim 2 wherein said means for urging said beam serrated toothed rack to matingly engage with said movable jaw member serrated toothed rack is accomplished by a beam spring element.

[Claim 4]

4. An adjustable wrench according to claim 1 further comprising a means for urging said movable jaw member toward the open state, being operational to allow said movable jaw member to move to the open state one by disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack.

[Claim 5]

5. An adjustable wrench according to claim 4 wherein said means for urging said movable jaw member into an open state is accomplished by a movable jaw member spring element.

[Claim 6]

6. An adjustable wrench according to claim 1 wherein said trigger includes an extension, a body with a slot, and a finger grip, said extension is pivotally attached to said movable jaw member and said slot is slidably engaged to said handle member, wherein said finger grip is operational to facilitate manual movement of said movable jaw member from the closed state to the open state and from the open state to the closed state.

[Claim 7]

7. An adjustable wrench according to claim 2 further comprising a means for manually disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack, being operational to facilitate free slidable engagement of said movable jaw member within said channel from the closed state to the open state and from the open state to the closed state.

[Claim 8]

8. An adjustable wrench according to claim 7 wherein said means for manually disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack includes a first aperture in said handle central portion that is in communication with said void, wherein said first aperture is positioned substantially parallel lengthwise to the void longitudinal axis.

[Claim 9]

9. An adjustable wrench according to claim 8 wherein said beam includes an extension positioned substantially transverse to the beam longitudinal axis, said beam extension is sized and configured to slidably project therethrough said handle central portion first aperture, wherein said beam extension is

operational to allow manual reciprocal movement of said beam within said void further allowing said beam serrated toothed rack to selectively matably engage with said movable jaw member serrated toothed rack and to selectively disengage said beam serrated toothed rack and said movable jaw member serrated toothed rack.

[Claim 10]

10. An adjustable wrench according to claim 1 wherein said handle second end portion includes an aperture that is operational to suspend said handle member from a support member, through the use of a suspension element.

[Claim 11]

11. An adjustable wrench according to claim 1 wherein said handle first end portion fixed jaw segment and said movable jaw member each include a fastener size indicia visibly disposed on each of said fixed jaw segment and said movable jaw member to identify relative jaw position corresponding to a fastener size.

[Claim 12]

12. An adjustable wrench according to claim 1 wherein said movable jaw member serrated toothed rack and said beam serrated toothed rack each have an acute angle formed between a serrated toothed rack step and a serrated toothed rack face.

[Claim 13]

13. An adjustable wrench for loosening or tightening a fastener, comprising:

(a) a handle member having a longitudinal axis between a handle first end portion, a handle central portion, and a handle second end portion, said first end portion including a fixed jaw segment, a fixed jaw surface plane, and a transverse axis to said fixed jaw surface plane, said first end portion also

- includes a channel therethrough positioned substantially parallel to said transverse axis, said central portion includes a void in communication with said channel, with said void having a longitudinal axis;
- (b) a movable jaw member including a movable jaw segment, a movable jaw surface plane, and an engagement portion, said engagement portion is slidably engaged within said channel being operational to move said movable jaw member from an open state to a closed state and from the closed state to the open state, said movable jaw member also includes a serrated toothed rack whose pitch line forms an acute angle in relation to said movable jaw surface plane;
- (c) a beam having a longitudinal axis, said beam is slidably engaged for reciprocative movement within said void, said beam including an end portion capable of projecting into said channel, said end portion having a serrated toothed rack that selectively matably engages with said movable jaw member serrated toothed rack, wherein said beam is operational to help secure said movable jaw member at a selected position between the closed state and the open state when said beam serrated toothed rack matably engages with said movable jaw member serrated toothed rack;
- (d) a means for urging said beam serrated toothed rack to matably engage with said movable jaw member serrated toothed rack, wherein said means assists in urging said movable jaw member to a selected position moving from the open state to the closed state resulting in said movable jaw member in a secured position state upon the fastener against moving toward the open state, being operational to allow said adjustable wrench to loosen or tighten the fastener; and
- (e) a means for manually disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack, being operational to facilitate free slideable engagement of said movable jaw member within said channel

from the open state to a closed state and from the closed state to the open state.

[Claim 14]

14. An adjustable wrench according to claim 13 further comprising a means for urging said movable jaw member toward the open state, being operational to allow said movable jaw member to move to the open state one by disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack.

[Claim 15]

15. An adjustable wrench according to claim 14 wherein said means for urging said movable jaw member into an open state is accomplished by a movable jaw member spring element.

[Claim 16]

16. An adjustable wrench according to claim 13 wherein said means for urging said beam serrated toothed rack to matingly engage with said movable jaw member serrated toothed rack is accomplished by a beam spring element.

[Claim 17]

17. An adjustable wrench according to claim 13 wherein said means for manually disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack includes a first aperture in said handle central portion that is in communication with said void, wherein said first aperture is positioned substantially parallel lengthwise to the void longitudinal axis.

[Claim 18]

18. An adjustable wrench according to claim 17 wherein said beam includes an extension positioned substantially transverse to the beam longitudinal axis,

said beam extension is sized and configured to slidably project therethrough said handle central portion first aperture, wherein said beam extension is operational to allow manual reciprocative movement of said beam within said void further allowing said beam serrated toothed rack to selectively matingly engage with said movable jaw member serrated toothed rack and to selectively disengage said beam serrated toothed rack and said movable jaw member serrated toothed rack.

[Claim 19]

19. An adjustable wrench according to claim 13 further comprising a trigger member pivotally attached to said movable jaw member and slidably engaged to said handle member, wherein said trigger is operational to facilitate manual movement of said movable jaw member from the closed state to the open state and from the open state to the closed state when said beam serrated toothed rack is selectively disengaged from said movable jaw member serrated toothed rack.

[Claim 20]

20. An adjustable wrench according to claim 19 wherein said trigger includes an extension, a body with a slot, and a finger grip, said extension is pivotally attached to said movable jaw member and said slot is slidably engaged to said handle member, wherein said finger grip is operational to facilitate manual movement of said movable jaw member from the closed state to the open state and from the open state to the closed state.

[Claim 21]

21. An adjustable wrench according to claim 13 wherein said handle second end portion includes an aperture that is operational to suspend said handle member from a support member, through the use of a suspension element.

[Claim 22]

22. An adjustable wrench according to claim 13 wherein said handle first end portion fixed jaw segment and said movable jaw member each include a fastener size indicia visibly disposed on each of said fixed jaw segment and said movable jaw member to identify relative jaw position corresponding to a fastener size.

[Claim 23]

23. An adjustable wrench according to claim 13 wherein said movable jaw member serrated toothed rack and said beam serrated toothed rack each have an acute angle formed between a serrated toothed rack step and a serrated toothed rack face.

[Claim 24]

24. A method of using an adjustable wrench for loosening or tightening a fastener, comprising the steps of:

(a) providing an adjustable wrench assembly that includes a handle member with a fixed jaw segment, a movable jaw member with a serrated toothed rack, a beam with a serrated toothed rack, a means for urging said beam serrated toothed rack to matingly engage with said movable jaw member serrated toothed rack, wherein said movable jaw member is assisted in urging toward a closed state and secured position state upon the fastener against moving toward the open state, a means for manually selectively disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack, and a trigger pivotally attached to said movable jaw member and slidably engaged to said handle member, said trigger member facilitating manual movement of said movable jaw member from the closed state to the open state and from the open state to the closed state when said beam serrated toothed rack is selectively disengaged from said movable jaw member toothed rack;

- (b) grasping said handle member manually of said adjustable wrench assembly;
- (c) moving and holding said means for manually selectively disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack;
- (d) moving said trigger to selectively position said movable jaw member between the closed state and the open state;
- (e) positioning said fixed jaw segment and said movable jaw member on the fastener;
- (f) releasing said means for manually disengaging said beam serrated toothed rack from said movable jaw member serrated toothed rack, thus allowing said means for urging said beam serrated toothed rack to matingly engage with said movable jaw member serrated toothed rack, wherein said movable jaw member is in a substantially secured position state upon the fastener; and
- (g) applying manual force to said handle member that is operational to loosen or tighten the fastener.

[Claim 25]

25. A method of using an adjustable wrench for loosening or tightening a fastener according to claim 24 wherein steps c, d, e, f, and g are sequentially repeated to provide for a ratcheting action of said adjustable wrench to loosen or tighten the fastener.